

Applicant: Peter SCHELHAS
Docket No. R.306649
Preliminary Amdt.

AMENDMENTS TO THE SPECIFICATION:

Page 1, please add the following new paragraphs before paragraph [0001]:

[0000.2] CROSS-REFERENCE TO RELATED APPLICATIONS

[0000.4] This application is a 35 USC 371 application of PCT/DE 2004/001759
filed on August 5, 2004.

[0000.6] BACKGROUND OF THE INVENTION

Please replace paragraph [0001] with the following amended paragraph:

[0001] ~~Prior Art~~ **Field of the Invention**

Please replace paragraph [0002] with the following amended paragraph:

[0002] The present invention is ~~based on a device as generically defined by the preamble to the main claim~~ **directed to an improved fuel delivery device for delivering fuel from a reservoir to an internal combustion engine.**

Please add the following new paragraph after paragraph [0002]:

[0002.5] Description of the Prior Art

Page 2, please replace paragraph [0005] with the following amended paragraph:

[0005] ~~Advantages of the Invention~~

SUMMARY AND ADVANTAGES OF THE INVENTION

Please replace paragraph [0006] with the following amended paragraph:

[0006] The device according to the present invention[[,]] ~~with the characterizing features of the main claim,~~ has the advantage over the prior art of achieving a simple improvement that allows the pressure regulator to be used as a pressure outlet valve by virtue of the fact that the

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valve member has a through conduit that connects the first connecting conduit to the second chamber when the pressure control valve is closed. Since the same pressure prevails in the second chamber of the pressure control valve as in the first chamber when the pressure control valve is closed and the fuel-supply pump is operating, and since in addition, a spring element prestresses the valve member in the closing direction, the pressure control valve remains closed while the fuel-supply pump is operating, which differs from the prior art.

Please delete paragraph [0007].

Please replace paragraph [0008] with the following amended paragraph:

[0008] **Advantageous modifications and improvements of the device disclosed.**

According to ~~an~~ **one** advantageous embodiment, the pressure control valve is embodied in the form of a diaphragm valve since a diaphragm valve is able to achieve particularly advantageous regulating properties.

Page 3, please replace paragraph [0012] with the following amended paragraph:

[0012] ~~Drawings~~ **BRIEF DESCRIPTION OF THE DRAWING**

Please replace paragraph [0013] with the following amended paragraph:

[0013] An exemplary embodiment of the present invention is ~~shown in simplified fashion in the drawings and will be explained in greater detail in the subsequent description~~ **herein below, in conjunction with the single drawing figure which shows a device for delivering fuel, with a pressure control valve according to the present invention.**

Page 4, please replace paragraph [0014] with the following amended paragraph:

[0014] ~~Description of the Exemplary Embodiment~~

DESCRIPTION OF THE PREFERRED EMBODIMENT

Please delete paragraph [0015].

Page 6, please replace paragraph [0027] with the following amended paragraph:

[0027] The pressure control valve 12 according to the present invention has a valve housing 28 with a moving valve member 29 and a fixed valve seat 30, which is embodied on the connection fitting 27 and cooperates with the valve member 29. For example, the valve member 29 is embodied in the form of a diaphragm. The pressure control valve 22 has two adjoining chambers, a first chamber 31 and a second chamber 32 that are separated from each other by the valve member 29. The first connecting conduit 23 and the second connecting conduit 24 feed into the first chamber 31; the first connecting conduit 23 ~~[[is]]~~ **has its outlet** situated in the vicinity of the valve seat 30. The second chamber 32 contains a spring element 35, for example a helical spring, which presses the valve member 29 against the valve seat 30 with a prestressing force acting in the closing direction. For example, one end of the spring element 35 rests against the second cup bottom 42 and the other end rests against the valve member 29.

Page 7, please replace paragraph [0028] with the following amended paragraph:

[0028] For example, the valve housing 28 of the pressure control valve 22 has a first housing part 36 and a second housing part 37. The first housing part 36 and the second housing part

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37 are each embodied, for example, in a cup-shaped form. The first housing part 36 has a first cup bottom 38 and on the side oriented away from the first cup bottom 38, has a for example annular first shoulder or flange 39. The second housing part 37 has the second cup bottom 42 and on the side oriented away from the second cup bottom 42, has a for example annular second shoulder or flange 43. The first housing part 36 and the second housing part 37 rest against each other respectively with the first shoulder 39 and the second shoulder 43, enclosing an inner space that contains the first chamber 31 and the second chamber 32. The first housing part 36 and the second housing part 37 are attached to each other for example by means of welding, clipping, crimping, gluing, or clamping.

Page 8, please replace paragraph [0033] with the following amended paragraph:

[0033] According to the present invention, the sealing element 46 of the valve member 29 has a through conduit 48 concentric to the first connecting conduit 23; when the pressure control valve 22 is closed, this through conduit 48 connects the first connecting conduit 23 to the second chamber 32; when the pressure control valve 22 is open, ~~this through conduit 48 connects the first connecting conduit 23~~ is connected to the first chamber 31 to the second chamber 32.

Page 9, please replace paragraph [0036] with the following amended paragraph:

[0036] During operation of the fuel-supply pump 7, the pressure control valve 22 is closed since at least approximately the pressure generated by the fuel-supply pump 7 prevails both in the first chamber 31, via the second connecting conduit 24, and in the second chamber 32, via

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the first connecting conduit 23 and the through conduit 48, so that the compressive forces exerted **by fuel pressure** on the side of the valve member 29 oriented toward the second chamber 32 are at least approximately canceled out by the compressive forces exerted **by fuel pressure** on the side of the valve member 29 oriented toward the first chamber 31. As a result, the opening pressure at which the pressure control valve 22 opens is independent of the pressure generated by the fuel-supply pump 7. In addition, the spring element 35 prestresses the valve member 29 in the closing direction so that the pressure control valve 22 remains reliably closed during operation of the fuel-supply pump 7.

Page 12, please add the following new paragraph after paragraph [0043]:

[0044] The foregoing relates to preferred exemplary embodiment of the invention, it being understood that other variants and embodiments thereof are possible within the spirit and scope of the invention, the latter being defined by the appended claims.